

Climatological Data for December, 1909.
DISTRICT No. 9, COLORADO VALLEY,

FREDERICK H. BRANDENBURG, District Editor.

GENERAL SUMMARY.

The month was abnormal in every respect. Low temperatures prevailed; in almost all localities the mean was the lowest ever observed in December; and in the matter of sustained cold, it is probable that the month has never been equaled, although lower extremes have occasionally been noted. In addition to the severe temperature, the snowfall was heavy, and in the central part of the district excessive. There was much destruction from floods in southern Nevada, an occurrence without known precedent in winter. Ice gorges formed in some of the Utah streams, flooding the adjacent lands. Railroad traffic was much impeded, and some mountain districts were cut off for a long time by snow slides and drifting. Agricultural interests also suffered; there was some loss of stock on account of the severe cold and deep snow; and there is reason to apprehend serious injury to the tenderer fruits in portions of the district.

TEMPERATURE.

The mean of the 122 stations reporting was 26.8°, or 7.2° below the normal. A deficiency occurred in all localities. It was greatest over the Colorado Plateau, in eastern Utah, and in the mountain parks and valleys. The least deficiency was noted in the central Gila Valley. By subdivisions the means and departures were: Western Wyoming, 6.4°, -8.0°; western Colorado, 12.5°, -10.2°; eastern Utah, 12.3°, -10.6°; western New Mexico, 27.1°, -7.1°; Arizona, 40.0°, -5.2°. The highest monthly mean was 50.3° at Yuma, and the lowest -4.7°, at Wellington, Utah. A mean below zero also occurred at Eden, Wyo. The 1st and 31st were the only warm days of the month. The severest cold occurred from the 3d to 7th and from the 17th to 30th. The 18th was the coldest day in the northern and the 19th in the southern half of the district. In Arizona the 4th and 5th were very cold, and over the Colorado Plateau the 24th and 25th showed very low minima. The lowest reported was -47° at Fraser, Colo., on the 18th, and the highest 81° at Red Rock, Ariz., on the 31st.

PRECIPITATION.

The mean of the 163 stations reporting was 1.83 inches, or 0.36 inch above the normal. An excess was general except in the extreme northern and in the extreme southern portions. In southern Utah and Nevada and in southwestern Colorado the snowfall was very heavy. The greatest monthly precipitation was 6.93 inches, at Cascade in the San Juan Mountains. Several stations in Utah and Colorado reported more than 5 inches. The least precipitation was 0.18 inch at Pratt, in southwestern New Mexico, a locality where the precipitation was generally light. At the close of the month the mean depth of snow at 81 stations in western Colorado, having a mean altitude of 8,800 feet, was 27.0 inches. This region furnishes the greater part of the summer flow of the Colorado. By watersheds the means and departures of the precipitation were: Green, 1.74 inches, +0.26 inch; Grand, 2.45 inches, +0.77 inch; San Juan, 3.05 inches, +0.95 inch; Little Colorado, 1.71 inches, +0.60 inch; Gila and tributaries, 1.31 inches, +0.20 inch; lower Colorado and minor tributaries, 2.39 inches, +0.98 inch. The heaviest and most widely-distributed precipitation occurred in the first decade; there was also much snow from the 20th to 24th. There was but little snow during the cold weather from the 25th to 30th.

RIVERS.

In the greater part of the district the weather was too cold for the snowfall to have much effect on the stream flow. In

southern Nevada there was much destruction of railroad property by floods in the normally dry arroyos, but few details are obtainable.

MISCELLANEOUS.

The sunshine was deficient in all parts of the district, averaging about 60 per cent of the possible. The relative humidity was high, especially in Arizona.

TEMPERATURE INVERSION DURING DECEMBER, 1909.

The inversion of temperatures in the fruit-growing regions on the western slope during December was so pronounced and characteristic as to merit notice, as showing the relative liability to winter-killing of the tenderer fruits in different localities. Considering first the lower Grand and Gunnison valleys, we find the following extremes at stations from 7,000 to 6,000 feet above sea-level: La Sal, Utah, -11°; Collbran, Colo., -10°; Lujane, Colo., -15°; Crawford, -12°; River Portal, -11°. The mean for this group is -11.8°. In the next group, from 6,000 to 5,000 feet, the values are: Montrose, -14°; Paonia, -12°; Grand Valley, -15°; mean, -13.7°. Between 5,000 and 4,000 feet we have: Delta, -24°; Grand Junction, -15°; Fruita, -21°; Green River, Utah, -23°; mean, -20.7°. It will be seen that there is a decided decrease in temperature with decreasing elevation, amounting to 8.9° between the upper and the lower groups. The temperatures in the two higher groups are slightly above the accepted danger limit for peach buds; those in the lower group are considerably below it. A similar condition is found in the San Juan region, in northwestern New Mexico. At the several stations, in the same order of elevation, the values were: Mancos, -14°; Ft. Wingate, -11°; Durango, -12°; Bloomfield, -18°; Fruitland, -17°. In some cases, as at Moab, Utah, and near Grand Junction, exceptionally favorable local conditions, as of air drainage, raise the minimum much above the average for that level, but in general the law of decrease of temperature with decrease of elevation holds, both in winter cold spells and in spring frosts.

SNOWFALL IN THE MOUNTAINS OF COLORADO.

The distribution of the snowfall up to December 31 was irregular and, as a whole, considerably less than for the corresponding period last year. As compared with the normal, there was a deficiency on the northeastern drainage areas, and an excess on the southeastern and western watersheds. The ground was not deeply frozen when the first snow fell, and it is likely that considerable moisture will be absorbed when melting begins. Continued cold and the general absence of high winds have been unfavorable to packing. The warm spell at the close of December, which caused considerable settling and some melting, put the snow at moderate elevations in a condition favorable for solidifying, but at higher altitudes, where the weather has remained very cold, the snow is still in a comparatively loose state.

While the snowfall has been less than a year ago on the upper watershed of the Grand in Summit County and parts of Grand County, the fall in general has equaled the normal. On other parts of the upper drainage system the amounts are, as a rule, greater than the normal and the fall last year.

Except near the Continental Divide, the snowfall over the Gunnison drainage area has not only been greater than the normal, but greater than for the corresponding period last year.

On the upper reaches of the Yampa the snowfall has been less than a year ago, and slightly below the normal. Quite the opposite conditions exist in the region drained by the San Juan proper and its large tributaries that join the trunk stream in

Utah and New Mexico. In this region the fall has been unusually heavy.

FOREST SERVICE SCHOOL.

The Forest Service School, at the Coconino Forest Experiment Station, 8 miles northwest of Flagstaff, Ariz., on the Fort Valley road, was closed for the season in November last. Fully 50 forest rangers were instructed in the various duties pertaining to forestry by Mr. G. A. Pearson, Forester in Charge. The experimental station is the first of its kind established in the Forest Service, and has proven highly successful.

COLORADO RIVER SIPHON.

Work on the inverted siphon under the Colorado River, which is to carry the vitalizing flow of that large stream to the rich but arid lands of the Yuma Valley and mesa, has assumed definite and visible form at the end of three weeks of preparations and preliminary operations.

Under the personal supervision of Mr. Francis L. Sellew, Project Engineer of the Yuma Project of the United States Reclamation Service, the culminating shaft of the siphon is being gradually sunk on the Arizona side of the Colorado, the location being on the Reclamation Service Reservation, between the United States Custom House and the Southern Pacific Railroad bridge. On the California side of the river, ground is now

being cleared for sinking the shaft at the beginning of the siphon, into which the water will sink from the end of the main canal, flowing from the Laguna Dam, 14 miles through the Yuma Indian Reservation, pass below the river through the immense concrete tube to be laid thereunder, and bubble forth from the mouth of the completing shaft on the Arizona side, to connect with the canals traversing the Yuma Valley.

SALT RIVER PROJECT—ROOSEVELT DAM.

The highest point on the Roosevelt Dam, on the upper Salt River, is now 228 feet, or 12 feet from the crest of the final structure. The lowest point is about 151 feet as near as can be learned. The water elevation is about 100 feet. Under the rules of construction the water is not to be allowed within 25 feet of the lowest point on the dam, except in an emergency that can not be avoided. In other words, that the contractors may not be interfered with, the Government will not allow the water to be stored within 25 feet of the crest at any time, unless there is a flood of greater proportions than the discharging power of the valves, tunnel, and canal, and the flood lasts long enough to fill the basin above that constantly rising 25-foot line.

It is presumed that, with the heavy snows now in the mountains, an additional depth of 10 to 15 feet of water may be expected in the basin.

TABLE 1.—Climatological data for December, 1909. District No. 9, Colorado Valley.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.				Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelting.	Number of rainy days, of inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Wyoming.																				
Daniel.	Uinta.	6,740	10	8.0	- 8.0	35	1	-30	19	37	0.70	- 0.15	0.20	7.0	5	15	13	3	nw.	J. M. Van Dervort.
Dixon.	Carbon.	6,577	2	- 1.8		35	31	-40	24	44	1.10		0.60	11.4	8	13	10	8	n.	Carey O. Morgan.
Eden.	Sweetwater.	6,400	3																	Eden Valley L'd & Ir. Co.
Fontenelle.	Uinta.	6,083	4	11.1		56	1	-32	18	42	0.22		0.12	5.5	3	18	6	7	w.	C. W. Holden.
Green River.	Sweetwater.	7,630	3																	Geo. H. Maxom.
Kendall.	Fremont.	7,167	3	8.4		40	1	-27	18	36	0.38		0.09	7.2	8	18	7	6	nw.	Art. Doyle.
Pinedale.	do.	7,500	1																	Forest Service.
Willow Creek Cabin.	do.																			John L. Allen.
Colorado.																				
Ashcroft.	Pitkin.	9,483	8	10.6		42	30	-25	18	44	2.41		1.00	34.0	13					Dan McArthur.
Breckenridge.	Summit.	9,536	19	8.0	- 9.5	42	31	-36	18	46	1.35	- 0.95	0.70	15.5	8	15	11		n.	Mrs. J. G. Thompson.
Cascade.	San Juan.	8,900	3								6.93		1.14	74.2	13	14	1	16	e.	San Juan P. & W. Co.
Chromo.	Archuleta.	7,500	3	13.6		44	31	-28	19	58	1.57		0.32	35.5	10	18	2	11	sw.	Lawrence Nolan.
Cochetopa.	Saguache.	9,088									0.26		0.13	4.8	4	11	11	9	w.	Bessie McDonough.
Collbran.	Mesa.	6,000	16	16.9		42	2	-10	18	25	1.89	+ 0.77	0.36	38.5	16	9	7	15	sw.	A. A. Wood.
Columbine.	Routt.	8,766									5.57		1.20	42.5	18	10	6	15	sw.	Geo. H. Caron.
Columbine Ranch.	De'ta.	6,925									5.50		1.40	60.5	13	14	3	14	sw.	Geo. W. Wade.
Corona.	Grand.	11,660	2	2.6		26	31	-23	18	27	3.68		0.74	44.5	16				w.	U. S. Weather Bureau.
Crawford (near).	Montrose.	6,800		16.7		44	31	-12	18	34	1.34		0.24	25.0	17	10	6	15	sw.	C. W. Roe.
Crested Butte.	Gunnison.	8,867									5.45		1.85	44.0	10	18	4	9	nw.	Charles L. Ross.
De Beque.	Mesa.	4,935									1.71	+ 1.13	0.83	11.0	10	16	5	10		C. M. Paine.
Delta.	Delta.	4,965	18	17.4	- 8.3	56	2	-24	25	48	4.32		2.34	24.3	7	6	9	16	n.	E. M. Getts.
Dillon.	Summit.	8,800																		Harry T. Hamilton.
Dolores.	Dolores.	6,500																		Geo. R. Simmons, jr.
Dunkley.	Routt.	7,430	3																	Geo. W. Dunkley.
Durango.	La Plata.	6,534	16	16.6	-11.7	43	1	-12	29	41	3.81	+ 2.41	1.05	34.2	13	15	7	9	nw.	U. S. Weather Bureau.
Eagle.	Eagle.	6,598	4	10.6		42	9	-26	18	50						11	8	8	w.	J. M. Witterman.
Eureka.	San Juan.	10,000	2																	San Juan P. & W. Co.
Fruita.	Mesa.	4,510	10	13.3	-12.2	42	10	-21	25	40	1.58	+ 0.93	0.37	17.5	11	14	3	14		J. B. Willsea.
Gladstone.	San Juan.	10,400	3																	San Juan W. & P. Co.
Glenwood Springs (near).	Garfield.	5,823	11	14.0	-11.7	40	1	-22	18	43	1.06	- 0.41	0.28	22.0	10	8	6	17	n.	E. A. O'Neill.
Grand Junction.	Mesa.	4,608	18	17.1	-11.1	43	1	-15	25	35	0.67	+ 0.26	0.24	9.9	10	13	6	13	nw.	U. S. Weather Bureau.
Grand Lake.	Grand.	8,153									2.67		0.64	25.2	7	19	4	8	w.	Mrs. Belle Kauffman.
Grand Valley.	Garfield.	5,089	17	17.0	- 8.1	53	24	-15	25	57	2.17	+ 1.25	0.65	24.5	13	9	7	14		David Evans.
Gunnison.	Gunnison.	7,670	16	1.5	-11.3	40	1	-38	19	47	1.93	+ 1.39	0.50	24.3	11	9	18	4		Clarence Adams.
Hayden.	Routt.	6,337																		C. W. Harkness.
Hesperus.	La Plata.	8,870	11																	John S. Spear.
Horsely.	Montrose.	8,700																		Lawrence J. Finch.
Ignacio.	La Plata.	6,425																		Elizabeth Schalles.
Ironton.	Ouray.	10,000																		P. H. Foley.
Kremmling (near).	Grand.	7,337	1	9.2		49	31	-42	18	49	2.63		0.77	34.0	10	7	14	10	sw.	H. A. Howe.
Lake City.	Hinsdale.	8,686	4	12.1		42	24	-29	19	56	1.19		0.35	12.5	9	14	11	6		W. H. Ogle.
Lay.	Routt.	6,190	15	10.1	- 9.4	39	31	-36	18	47	1.15	+ 0.20	0.40	18.0	9	11	2	18	sw.	A. G. Wallihan.
Lujane.	Montrose.	6,620	3	17.4		49	31	-15	19	38	1.22		0.30	14.8	9	12	14	5	se.	T. T. Richards.
Manitou.	Montezuma.	6,960	10	18.4	- 9.0	45	1	-14	24	46	1.92	+ 0.77	0.30	21.1	11	15	5	11	sw.	B. M. Krumpantaky.
Marble.	Gunnison.	7,951	1	14.9		45	30	-29	18	52	4.13		1.00	46.2	17	12	10	9	e.	Homer Harrington.
Marshall Pass.	Saguache.	10,846	6								1.49		0.38	11.9	6	8	21	2	sw.	William D. Lillard.
Meeker.	Rio Blanco.	6,182	17	13.2	- 6.8	45	31	-30	18	40	1.04	- 0.17	0.56	16.0	10	10	7	14	sw.	T. Baker.
Montrose (near).	Montrose.	5,811	20	13.8	-13.8	50	2	-14	19	40	1.62	+ 0.87	0.33	11.5	11	12	11	8		R. Butterfield.
Nast.	Pitkin.	7,953		9.7		36	9	-29	13	38	1.84		0.64	22.8	6	10	9	12	w.	Arthur Hanthorn.
Pagoda.	Routt.	6,500	18	12.7	- 8.6	45	31	-29	18	42	2.54	+ 0.97	0.48	49.0	10	14	3	14		Shaw Brothers.
Pagosa Springs.	Archuleta.	7,108	2	10.8		39	1	-35	19	58	3.04		0.63	34.5	13	13	5	13		E. T. Walker.
Paonia.	Delta.	5,694	8	18.4		40	2	-12	27	35	2.88	+ 2.00	0.75	30.5	11	8	12	11	sw.	J. M. Underwood.
Parshall.	Grand.										1.17		0.50	24.0	6					F. A. Field.
Pitkin.	Gunnison.	9,500									2.27		1.00	27.5	8	16	11	4		Mrs. Maggie Cammann.
Rangely.	Rio Blanco.	5,050	10	5.4	-11.5	39	8	-30	18	44	1.21	+ 0.57	0.40	19.8	9	11	4	16	w.	Mrs. C. P. Hill.
Red Cliff.	Eagle.	8,695	14								3.68	+ 0.74	0.90	31.5	9	11	4	16		Dorothea Greiner.
Rico.	Dolores.	8,324	8								3.55		0.61	53.0	14	13	10	8	n.	Clinton B. Smith.
River Portal.	Montrose.	6,570	3	16.8		49	31	-11	18	30	1.55		0.26	16.7	14	7	7	17		J. Dill.
Sapinero.	Gunnison.	8,125	9	10.2		42	31	-27	19	37	2.65		0.40	31.8	17	10	6	15	w.	W. F. Irving.
Silt.	Garfield.	5,441	13																	W. S. Park.
Silverton (1).	San Juan.	9,285	5																	V. E. Kerr.
Silverton (2).	do.	9,400	3	10.0		40	29	-25	4	50	3.28		0.80	65.0	15	12	6	13	sw.	San Juan P. & W. Co.
Spruce Lodge.	Grand.	9,600	1								3.09		0.70	48.0	12					H. J. Wills.
Steamboat Springs.	Routt.	6,683		9.2		41	1	-44	18	46	2.53		0.78	27.2	10	18	3	10		M. Elliot Houston.
Tacoma.	La Plata.	7,300	3	16.5		44	2	-10	26	43	2.65		0.70	29.0	13	13	0	13		San Juan P. & W. Co.
Terminal Dam.	do.	8,300	3								3.78		0.80	44.7	13	18	5	8	n.	Do.
Uncompahgre Plateau.	Montrose.	8,400									5.69		0.98	62.0	12	9	12	10	sw.	Martin Esser.
Whitepine.	Gunnison.	9,500	8	6.2		32	1	-27	18	46	1.52		0.90	22.0	3	17	9	5	s.	C. E. Macy.
Yampa.	Routt.	8,000									1.29		0.43	20.6	13	6	18	7	s.	Percy A. Hughes.
Utah.																				
Aneth.	San Juan.	4,800	8																	Maude A. Palmer.
Baker.	do.	7,560									3.45		0.80	42.5	8	15	0	18	s.	E. H. Wolf.
Basin.	Grand.	9,500									4.91		1.00	52.0	11	12	10	9	nw.	James Jeffs.
Castle Dale.	Emery.	5,500	10	8.1																

TABLE 1.—Climatological data for December, 1909. District No. 9—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.				Sky.				Prevailing wind direction.	Observers.	
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelting.	Number of rainy days, all or more.	Number of clear days.	Number of partly cloudy days.			Number of cloudy days.
Utah—Cont'd.																				
Teasdale.	Wayne.	7,000	1			35	2	-34	18	45	0.97		0.20	9.7	11	12	9	10		Josiah Shurts.
Theodore.	Wasatch.	5,507	4	5.1									0.20							L. Claire Winslow.
Tropic.	Garfield.	7,000	12	21.2	- 7.7	54	1	-15	26	43	3.62	+ 3.19	1.10	34.0	8	13	7	11	nw.	E. P. Bolton.
Vernal.	Uinta.	5,380	14	6.5	-11.4	35	2	-18	18	30	0.86	+ 0.22	0.25	8.7	7	14	1	16		Joab Collier.
Wellington.	Carbon.	5,540	10	- 4.7	-18.0	32	1	-30	18	43	2.30		0.60	23.0	5					Melville Branch.
New Mexico.																				
Blackrock.	McKinley.		2	23.0		53	1	-21	19	52	0.77		0.40	10.4	7	14	10	7	e.	Wm. J. Oliver.
Bloomfield.	San Juan.	5,500	13	17.2	-10.3	56	2	-18	27	44	0.67	+ 0.08	0.10	11.7	10	11	9	11	sw.	Fred Le Clerc.
Cambray.	Luna.	4,215	11								0.60	+ 0.05	0.40	8.0	2	21	10	0		Agent, Southern Pac. Ry.
Cliff.	Grant.	4,470	11	36.3	- 4.2	67	13	3	5	44	0.50	- 0.56	0.30		3	2				T. J. Clark, sr.
Columbus.	Luna.	4,054									1.06		0.40	9.0	3	16	6	9	sw.	Agent, E. P. & S. W. R. R.
Deming.	do.	4,333	33	37.0		68	3	9	19	46	0.70	+ 0.05	0.70	7.0	1	23	0	8	w.	Agent, Southern Pac. Ry.
Dulce.	Rio Arriba.	6,767	3																	W. A. Fuller.
Fort Bayard.	Grant.	6,152	35	34.5	- 4.8	63	31	12	6	39	0.90	+ 0.04	0.45	13.5	7	21	4	6	w.	U. S. A. Gen'l Hospital.
Fort Wingate.	McKinley.	6,997	46	24.4	- 7.3	51	29	-11	19	47	0.87	- 0.12	0.20	9.5	6	9	7	15	sw.	Medical Corps, U. S. A.
Frisco.	Socorro.	5,800	3			51	31	-15	19				21.0	30	90	4	30	sw.	John R. Milligan.	
Fruitland.	San Juan.	4,800	17	18.0	-11.4	54	2	-17	27	35	0.94	+ 0.54	0.24	9.5	9	17	4	10	nw.	Cyril Jas. Collier.
Gage.	Luna.	4,486	8			70	9				0.45	- 0.05	0.27	5.0	2	6	17	3	w.	Agent, Southern Pac. Ry.
Hachita.	Grant.	4,504									0.91		0.65	5.0	3	7	16	8	w.	Agent E. P. & S. W. R. R.
Hermans.	Luna.	4,451									1.00		0.74	10.0	2					Do.
Lordsburg.	Grant.	4,245	10	38.8	- 4.7	73	31	3	5	47	0.40	- 0.22	0.40	4.0	1	16	0	15	c.	Agent Southern Pac. Ry.
Luna (near).	Socorro.	7,300	5	24.7		55	1	-26	19	59	1.67		0.80	15.0	8	8	20	3	s.	C. B. Martin.
Manuelito.	McKinley.	6,252	5	23.2		52	1	-24	27	56	1.18		0.82	16.5	4	14	3	14	e.	W. A. L. Tarr.
Mimbres.	Grant.	5,007	3								0.78		0.48		3	13	11	7	nw.	Charles Dennis.
Pratt.	do.	4,415									0.18		0.18	2.0	1	20	7	4	w.	Agent, E. P. & S. W. R. R.
Redrock.	do.	4,150	5								0.62		0.30	4.0	3	19	8	4		Robt. H. Woods.
Rodeo.	do.	4,118	1								0.75		0.50	6.8	3	24	3	4		Agent, E. P. & S. W. R. R.
Rosa.	Rio Arriba.	6,000	5																	B. A. Candelario.
Arizona.																				
Allaire's Ranch.	Cochise.	4,184	13								0.46	- 0.33	0.20	1.5	5	17	4	10	nw.	Thos. Allaire.
Arizona Canal Dam.	Maricopa.	1,372		49.8	- 1.1	72	30	25	4	30	0.92	- 0.06	0.59	0.0	5	12	4	15	ne.	U. S. Reclamat'n Service.
Astec.	Yuma.	492	9	46.0	- 8.6	73	2	20	21	42	0.93	+ 0.29	0.79	0.0	4	15	0	16	n.	Agent, Southern Pac. Ry.
Benson.	Cochise.	3,523	26	45.0	- 4.4	75	30	11	5	48	0.68	+ 0.14	0.48	T.	2	8	7	16	e.	Do.
Blaslee.	do.	5,500	19	43.2	- 2.5	67	31	21	5	30	1.50	+ 0.40	0.65	5.5	5	18	5	8	w.	Rev. J. G. Pritchard.
Bonita.	Graham.	4,916	30								0.60	- 0.61	0.40	4.0	3	21	2	8	w.	A. Johnson & Co.
Bowie.	Cochise.	3,756	9	41.4	- 5.3	70	1	13	5	36	0.78	- 0.36	0.38	4.0	4	12	0	19	e.	Agent, Southern Pac. Ry.
Buckeye.	Maricopa.	980	17	47.5	- 3.6	74	30	19	19	43	1.42	+ 0.51	0.90	T.	5	9	16	6	e.	H. E. Kell.
Casa Grande.	Pinal.	1,396	28	47.2	- 6.4	75	9	13	6	37	0.41	- 0.34	0.26	0.0	5	13	10	8	w.	Agent, Southern Pac. Ry.
Casa Grande Ruins.	do.	1,422	1	48.0		79	9	16	5	45	0.42		0.32	0.0	5	16	4	11	w.	F. Pinkley.
Cave Creek.	Maricopa.	1,520	2	46.8		75	30	18	19	45	1.15		0.35	2.0	4	14	8	9	n.	E. H. Howard.
Chin Lee.	Apache.	6,090	1	21.3		57	1	-19	27	43	1.43		0.79	9.2	9	14	5	12	n.	Fr. L. Osterman, O. F. M.
Chilsons Mill.	Graham.	5,000	4	30.5		60	30	2	25	42	3.49		1.05	32.0	5	10	11	10		H. R. Chlarson.
Clifton.	do.	3,584	17	42.9		66	2	23	5	29	0.71	- 0.48	0.25	1.6	5	15	13	3		W. B. Cramer.
Cline.	Gila.	2,300	8	43.8	- 2.3	71	31	19	19	36	2.51	+ 0.70	0.78	5.0	6	12	7	12	sw.	W. M. Clanton.
Cochise.	Cochise.	4,219	11								0.93	+ 0.21	0.55	9.0	3					Agent Southern Pac. Ry.
Columbia.	Yavapai.	1,900	9	47.4	- 4.6	72	30	24	4	34	3.41	+ 1.61	2.35	3.0	5	17	9	se.	M. J. Nolan.	
Congress.	do.	3,683	13	43.8	- 7.7	65	30	26	6	22	2.88	+ 1.65	1.54	7.1	7	14	6	11	sw.	Assayer, Congress Mine.
Dos Cabezas.	Cochise.	5,250	1	40.6		68	31	9	5	41	0.95		0.38	7.0	4	19	5	7	w.	N. Erickson.
Douglas.	do.	3,930	6	44.8		77	31	6	5	51	0.99		0.65	4.0	5	20	5	6	sw.	Dr. F. T. Wright.
Dudleyville.	Pinal.	2,204	18																	G. F. Cook.
Flagstaff (1).	Coconino.	6,907	17	22.1	- 6.3	52	30	-12	24	59	2.98	+ 1.03	1.21	30.7	12	13	5	13	sw.	U. S. Weather Bureau.
Flagstaff (2).	do.	7,452	4																	C. C. Moers.
Flagstaff (3).	do.	7,500	1	20.0		58	30	-23	24	67	3.19		2.04	30.4	5	10	11	10	e.	U. S. Forest Service.
Florence.	Pinal.	1,504	9	42.5	- 8.0	80	31	19	7	48	0.40	- 0.98	0.22	0.0	6	11	14	6		Agent, P. & E. R. R.
Fort Apache.	Navajo.	5,200	30	34.2	- 3.2	69	31	4	19	52	1.03	- 0.47	0.28	11.1	5	14	12	5	s.	Post Surgeon.
Fort Huachuca.	Cochise.	5,100	23	44.4	- 1.6	69	1	20	5	49	1.79	+ 0.74	0.70	9.0	4	23	0	8	se.	Do.
Fort Mohave.	Mohave.	604	20																	A. F. Duclos.
Gilabend.	Maricopa.	737	18	49.4	- 3.9	75	1	22	18	39	0.62	- 0.07	0.45	0.0	3	12	12	7	sw.	Agent, Southern Pac. Ry.
Globe.	Gila.	3,525	8	41.4		68	29	18	19	35	1.21		0.55	7.0	8	6	15	10	se.	Dr. B. G. Fox.
Grand Canyon (1).	Coconino.	6,860	5	21.0		53	30	-10	24	50	3.70		1.35	38.9	9	10	7	14	w.	Agent, Santa Fe R. R.
Grand Canyon (2).	do.	3,676	2	31.2		56	1	8	27	20	4.55		1.68	22.0	10	13	5	13	sw.	C. C. Spaulding.
Greer.	Apache.	9,200									1.65		0.40	17.0	8	16	7	8	n.	Mrs. M. Butler.
Holbrook.	Navajo.	5,069	18	31.0	- 3.5	66	31	- 1	19	42	1.27	+ 0.55	0.35	13.4	6	12	9	10	sw.	Thorwald Larson.
Intake.	Gila.	2,230	4								0.48		0.28	3.0	3	12	9	10	ne.	A. H. Neal.
Jerome.	Yavapai.	4,743	12	36.2	- 6.0	57	1	17	19	22	1.88	+ 0.42	0.63	9.2	5	14	7	10	w.	Dr. L. A. Hawkins.
Keams Canyon.	Navajo.		4	22.8		53	1	- 8	27	40	2.15		0.52	16.9	11	11	14	6	n.	L. R. Ballard.
Kingman.	Mohave.	3,326																		G. R. Gooding.
Maricopa.	Pinal.	1,186	29																	Agent, Southern Pac. Ry.
Mesa.	Maricopa.	1,244	14	48.1	- 2.7	76	30	21	3	36	0.87	- 0.11	0.54	T.	6	10	11	10	ne.	C. L. Diehl.
Mohawk Summit.	Yuma.	538	9																	Agent, Southern Pac. Ry

TABLE 1.—Climatological data for December, 1909. District No. 9—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.				Sky.				Prevailing wind direction.	Observers.	
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.	Number of rainy days, .01 inch or more.	Number of clear days.	Number of partly cloudy days.			Number of cloudy days.
Arizona—Cont'd.																				
Thatcher.....	Graham.....	2,800	....	40.8		70	2	12	5	42	0.45		0.15	3.0	5	8	18	5	se.	Prof. J. H. Larson.
Tombstone.....	Cochise.....	4,550	14	45.1	-11.5	76	31	19	3	41	0.93	+ 0.14	0.38	5.6	4	13	14	4	.....	F. N. Walcott.
Tuba.....	Coconino.....	4,500	9	21.7	-10.1	56	1	-13	28	37	1.54	+ 0.83	0.50	10.4	8	8	10	13	ne.	G. H. Kraus.
Tucson (1).....	Pima.....	2,390	29	47.4	- 4.3	79	31	17	5	40	0.81	- 0.13	0.40	T.	5	1	22	8	nw.	University of Arizona.
Tucson (2).....	do.....	2,380	1	45.1		77	31	14	5	43	0.71		0.48	0.0	2	19	6	6	nw.	H. G. Brown.
Upper San Pedro.....	Cochise.....	5,000																		B. T. Stuart.
Yail.....	Pima.....	3,421	11	43.0	-10.3	72	31	13	5	41	0.32	- 0.24	0.32	0.0	1	10	10	11	e.	Agent, Southern Pac. Ry.
Walnut Grove.....	Yavapai.....	3,649	19								3.08	+ 1.32	1.70	27.5	6	13	8	10	.....	J. O. Carter.
Wickenburg.....	Maricopa.....	2,072	2	47.4		71	31	23	5	33	0.83	- 0.96	0.45	0.0	6	14	9	8	s.	Agent, P. & P. R. R.
Willcox.....	Cochise.....	4,164	29	38.6	- 4.7	65	1†	3	5	45	0.50	- 0.20	0.20	4.0	3	10	9	12	n.	Agent, Southern Pac. Ry.
Williams.....	Coconino.....	6,750	10	27.4		57	1	- 2	26	49	3.37		1.85	36.9	8	15	3	13	ne.	H. Victor.
Winslow.....	Navajo.....	4,853	1	29.9		70	1	1	19	46	1.74		0.60	14.5	8	14	0	17	.....	L. C. Henning.
Yarnell.....	Yavapai.....	4,700	11								2.96	+ 1.40	1.85	29.0	5	14	5	12	e.	E. L. Bartholomew.
Yuma (1).....	Yuma.....	141	30	50.3	- 5.2	74	2	26	4	34	0.46	- 0.02	0.36	0.0	3	17	6	8	n.	U. S. Weather Bureau.
Yuma (2).....	do.....	150	2																	E. L. Crane.
Nevada.																				
Caliente.....	Lincoln.....																			
Las Vegas.....	Clark.....	2,033	2	35.5		60	1†	12	19†	36	1.05		0.65	15.0	5	8	0	23	nw.	Agent, Salt Lake Route.
Logan.....	do.....	1,700	3	37.6		60	1	19	9	33	1.80		0.60	6.0	9	16	7	8	n.	Roy M. Filcher.

* Precipitation included in that of the next measurement.

** Temperature extremes are from observed readings of the dry-bulb; means are computed from observed readings.

† Also on other dates.

‡ Separate dates of fall not recorded.

§ Data are from standard instruments not supplied by the U. S. Weather Bureau.

|| Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.

|| Estimated by observer.

|| Precipitation for the 24 hours ending on the morning when it is measured.

T. Precipitation is less than 0.01 inch rain or melted snow.

a, b, c, etc., indicate, respectively, 1, 2, 3, etc., days missing from the record.

TABLE 2.—Daily precipitation for December, 1909. District No. 9, Colorado Valley.

Stations.	River basins	Day of month.																															Total.	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
Wyoming.																																		
Daniel.....	Green.....	T.	.30	.10	T.	T.	T.	T.	.10	.20			T.				T.					T.										.10	0.70	
Dixon.....	do.....		.18			.06		.02	T.	.03	.60						T.			.03	T.		.08										.10	1.10
Eden.....	do.....		.12			T.		T.			.03			T.			.07					T.												0.22
Fontenelle.....	do.....		.06	.04		.03		.03	.01	.09	.09																						.03	0.38
Green River.....	do.....																																	
Kendall.....	do.....																																	
Pinedale.....	do.....		.06	.04		.03		.03	.01	.09	.09																						.03	0.38
Willow Creek Cabin.....	do.....																																	
Colorado.																																		
Ashcroft.....	Grand.....	.20	1.00	.16	.07	.10		.03		T.	.20			.20	.06			.05						.09	.05							.20	2.41	
Breckenridge.....	do.....	.70	.33	.10		T.	T.	T.		.50	.60	.30	.65	T.	.08	.03		T.						.17	.34	.49	.24					T.	1.35	
Cascade.....	San Juan.....	1.00	.40	.60				.50	.60	.30	.65		T.	.50									.17	.34	.49	.24							1.14	6.93
Chromo.....	do.....	.19	.19	.10			.33	.05		.03	.27												.12	.23								.07	1.57	
Cochetopa.....	Gunnison.....	.12	.04								.05																						.05	0.26
Collbran.....	Grand.....	.04	.35	.07	.25	.01	.07	T.	T.	.04	.30	.01		.03	.10	T.						.01		.03	.36	.22							10	1.89
Columbine.....	Yampa.....	.10	.20	.07		.13	.28	.13	.14	.16	.62			.14	.18		.10							.98		.13	.17	.27	.05				72	5.57
Columbine Ranch.....	Gunnison.....	T.	.60	.15	.35	.30	.45	.35		.08	.07			.30									1.00	.40	.20								34	5.50
Corona.....	Grand.....	.10	.74	.58	.08		.22	.06	.10		.04	.14				.10	.33	.30							.06				.66	.08	.04		11	3.68
Crawford.....	Gunnison.....	.02	.24	.12	.03	.02	.06	.02		.05	.02			.20	.02	.10	.08	.02					.04	.14	.10								11	1.34
Crested Butte.....	do.....	.80	.60	.35	.25	.05	.05		.60	.40													.50					T.					1.85	5.45
De Beque.....	Grand.....		.30		.03	T.	.18				.12	.17		.02	.02		T.	T.	T.	T.	T.	T.	*	.83								.04	1.71	
Delta.....	Gunnison.....	2.34	.04	T.							T.											T.	.55	.17	T.	T.						.18	4.32	
Dillon.....	Dolores.....																																	
Dolores.....	Yampa.....																																	
Dunkley.....	San Juan.....	.06	.49	.09		.23	.19	.09		.34	.17							T.				.02	.88	.59	.33								33	3.81
Durango.....	Grand.....																																	12.05
Eagle.....	San Juan.....																																	
Eureka.....	Grand.....	T.	.37	T.		.02	.08	.01		.20	.26			T.			T.					.01	T.	.10	.25	.03							25	1.58
Fruita.....	San Juan.....																																	
Gladstone.....	Glenwood Springs.....		.20	.28	.06					.02	.05			.10	.05									*	.20								10	1.06
Grand Junction.....	do.....	T.	.16	T.		.03	.05	T.		.01	.04			T.	T.							T.	.01	.06	.21	.04							.06	0.67
Grand Lake.....	do.....		.64	T.	T.	T.	T.	T.	T.	.55	T.			.45	T.									.25	.15								.48	2.67
Grand Valley.....	do.....	.02	.65	.03		.08	.11	T.	T.	.02	.08	.30		T.	.04							T.	T.	.14	.32	.30		.15					.08	2.17
Gunnison.....	Gunnison.....		.29	.16		.12	.15	.02			.07			.02				.07							.14	.09							.80	1.93
Hayden.....	Yampa.....																																	
Hesperus.....	San Juan.....																																	
Horsely.....	Gunnison.....																																	
Ignacio.....	San Juan.....																																	
Ironton.....	Gunnison.....	.18	.31	.27	.32	.02	.17	.08		.03	.33	.11		.56	.18		T.	.01				.02	.18	.08	.30							*	42	3.57
Kremmling.....	Grand.....	.10	.77	.47		.13				.15	.05	.02		.09			T.		.07				T.	.07	.18	.62	T.		.15				10	2.63
Lake City.....	Gunnison.....	T.	.23	.24	T.			.11	T.	.07	.05	.02		.09			.09		.08		T.		.03	T.	.03	.20							35	1.19
Lay.....	Yampa.....	T.	.40	.07		T.	.02	T.		T.	.28			.02	.01		.03	T.					.03	T.	.03	.20							T.	1.15
Lujan.....	Gunnison.....		.18	.25	.27	T.					.13			.02	.01		.03	T.						.03	.20								28	1.92
Mancos.....	San Juan.....	.30	.27	.14	.02	.26	.06			.06	.32													T.	.03	.30							98	4.13
Marble.....	Grand.....	.10	1.00	.12	.18	.09	.03	T.		.02	.50		*	.24	.06	.02						.01	*	.16	.24	.54							17	1.49
Marshall Pass.....	Gunnison.....		.38	.22			.05				.19				.18								*	*	*	T.							98	4.13
Meeker.....	White.....	*	*	*		.56		.05						T.	.03								*	*	*	.40							T.	1.04
Montrose.....	Gunnison.....	.01	.33	.22		.23				.07	.18		.27	T.	.03	.05		.03						.11	.21	.33							.03	1.62
Nast.....	Grand.....	.22	.64	.22	T.		T.				.18		.27	T.	.03	.05		.03							.11	.21	.33						31	1.84
Pagoda.....	Yampa.....	.10	.26	.07						.18	.45	.14		.20	.45	.24									.15	.48							31	2.54
Pagosa Springs.....	San Juan.....		.63	.37	.11		.29			.18	.21			.13					.06	.08				.14	.41	.30	.11						.15	3.04
Paonia.....	Gunnison.....	.03	.50	.15	.30	.20		T.		.10				.13										.12	.75	.30							.30	2.88
Parshall.....	Grand.....	.50			.12		.18							.14											.13	.10								1.17
Parshall.....	Gunnison.....	T.	.70	.10		.10	.11		T.		.10													.06	.11								1.00	2.27
Pitkin.....	White.....																																	
Rangely.....	White.....		.15	.90	T.	T.	.30			*	.70			.20	.18	T.							T.	T.	.29	.50	.17		.08	T.				2.68
Redcliffe.....	Grand.....	.12	.26	.09	.04	.25	.04			.26	.09	.04		.06	.02		.08							.03	.29	.50	.12							

TABLE 2.—Daily precipitation for December, 1909. District No. 9—Continued.

Stations.	River basins.	Day of month.																															Total.	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
New Mexico—Cont'd.																																		
Cambray.....	Mimbres.....						.20												.20	.40													0.60	
Cliff.....	Gila.....						T.					T.						T.	.30	.40			T.	.30									0.50	
Columbus.....	do.....																	T.	.70														1.06	
Deming.....	do.....																	T.	.70														0.70	
Dulce.....	San Juan.....																																	
Fort Bayard.....	Mimbres.....	.02	.03				.15			T.								.08	.37			T.		*	.25								0.90	
Fort Wingate.....	Little Colorado.....		.20					.18			.18								.09				.18	*	.04								0.87	
Frisco.....	Gila.....																																	
Fruitland.....	San Juan.....		T.	.02	.15	*	.09	.06		*	.20												.24	.18								T.	0.94	
Gage.....	Gila.....																	*	.27				*	*								T.	0.45	
Hachita.....	do.....																	*	.65				*	T.	.26								0.91	
Hermans.....	do.....																		.74	.26	T.		T.	T.									1.00	
Lordsburg.....	do.....																		.40														0.40	
Luna.....	do.....			.10			.20	T.			.17							.80	.10		T.	.10	.10	.10									1.67	
Manuelito.....	Little Colorado.....						.09			.24												.33	.52											1.18
Mimbres.....	Mimbres.....				.30													*	.48	.18													0.78	
Pratt.....	Gila.....																		.18														0.18	
Redrock.....	do.....		.10																		.30					.22								0.62
Rodeo.....	do.....																		.50	.05					.20								0.75	
Rosa.....	San Juan.....																																	
Arizona.																																		
Allaire Ranch.....	Sonora.....					.02													.20	.12				.01	.11								0.46	
Arizona Canal Dam.....	Salt.....						.59			.01												.18	.12			.02							0.92	
Axtec.....	Gila.....					.03				.09													.79		.02								0.93	
Benson.....	San Pedro.....			T.															.48						.20								0.68	
Bisbee.....	do.....																		.65	.14					.46	.18			.07				1.50	
Bonita.....	Mimbres.....						.08					.40										.12											0.60	
Bowie.....	Gila.....						.05																		.30	.05							0.78	
Buckeye.....	do.....					.25	.11				.06																						1.42	
Casa Grande.....	do.....						.26			.04														.01	.06	.04								0.41
Casa Grande Ruins.....	do.....						.32				.02													.02	.03	.03								0.42
Cavecreek.....	Verde.....						.20			.32														.28	.35								1.15	
Chin Lee.....	San Juan.....		T.	.04				T.	.06	.08	.10	.03										.06	.79	.07		.20						T.	1.43	
Charlson's Mills.....	Gila.....						1.02				.62																						3.49	
Clifton.....	do.....			.03			.15																		.25								0.71	
Cline.....	Salt.....						.55				.15	.15												.75	.78	.13							2.51	
Cochise.....	Desert.....																																0.93	
Columbia.....	Agua Fria.....				.01			.30	T.		.65																						3.41	
Congress.....	Hasayampa.....		T.				.33				.41	.05																					2.88	
Dos Cabezas.....	Desert.....						.27																										0.95	
Douglas.....	Sonora.....																																	0.99
Dudleyville.....	Gila.....																																	
Flagstaff (1).....	Little Colorado.....		.12	T.		.23	.02	.06	T.		.50	.23																					2.98	
Flagstaff (2).....	do.....																																	3.19
Flagstaff (3).....	do.....		T.				.45	.20	T.		.20	.30																					0.40	
Florence.....	Gila.....						.05																										1.03	
Fort Apache.....	Salt.....		T.			.28					.07	.19																					1.79	
Fort Huachuca.....	San Pedro.....				T.																													
Fort Mohave.....	Colorado.....																																	0.62
Gilabend.....	Gila.....					.15				.02	T.																						1.21	
Globe.....	Salt.....						.06				.01	.03	.01																				3.70	
Grand Canyon (1).....	Colorado.....		.54			.45		.28		.25	.20																						4.55	
Grand Canyon (2).....	do.....		.40	.07		.50		.30			.09	.43																					1.65	
Greer.....	Little Colorado.....				.38		.20			.10		.19																					1.27	
Holbrook.....	do.....					.20		.22			.28																						0.48	
Intake.....	Salt.....						.28																										1.88	
Jerome.....	Verde.....							.41			.34	.63																					2.15	
Keams Canyon.....	Little Colorado.....		T.	.03	.25		.05	.20			.12	.02																						
Kingman.....	Colorado.....																																	
Maricopa.....	Gila.....																																	0.87
Mesa.....	Salt.....					.54					.04																						2.76	
Mohawk Summit.....	Gila.....																																	
Natural Bridge.....	Verde.....		.30				.40				.32	.34	.15																				1.23	
Nogales.....	Santa Cruz.....																																	

[illegible]

TABLE 3.—Maximum and minimum temperatures at selected stations, December, 1909. District No. 9, Colorado Valley.

Date.	Wyoming.				Colorado.								Utah.								New Mexico.							
	Daniel.		Green River.		Durango.	Grand Junction.	Gunnison.	Meeker.	Steamboat Springs.	Emery.	Fort Duchesne.	Hite.	Moab.	St. George (Experiment station).	Fort Bayard.	Fort Wingate.												
	Max.	Min.	Max.	Min.													Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1...	35	15	56	29	43	28	43	33	40	15	36	15	41	21	50	11	32	19	53	35	50	30	53	30	56	35	50	28
2...	26	-1	34	9	36	30	43	32	35	22	40	15	36	16	51	13	38	23	64	34	52	32	47	29	44	20	46	33
3...	16	-14	18	0	33	22	32	23	33	15	33	6	19	7	56	8	36	3	43	27	35	26	41	28	45	20	40	31
4...	7	-18	8	-21	23	2	26	18	24	0	30	-1	12	-7	44	10	28	0	38	21	32	17	40	17	35	19	38	10
5...	12	-23	28	-12	25	0	30	19	14	-18	23	-8	22	-23	34	9	16	-8	36	24	35	17	39	21	40	13	35	0
6...	20	-17	19	-4	33	1	30	15	18	4	25	3	20	9	37	7	21	-6	41	21	37	19	38	16	36	12	38	12
7...	19	-14	20	-2	21	-2	30	13	10	-17	31	5	18	1	45	-1	28	-7	35	27	36	19	36	18	45	18	35	11
8...	30	9	29	10	27	-2	36	20	21	-10	37	19	35	15	35	16	28	3	36	30	38	21	42	27	50	20	41	5
9...	23	12	34	20	33	12	31	26	22	-10	40	24	31	2	32	10	29	10	36	27	36	27	42	31	50	25	40	7
10...	26	-2	35	6	37	9	34	16	28	-11	38	23	31	15	31	8	31	10	47	30	42	20	49	29	45	24	37	21
11...	21	-5	33	-3	28	3	27	4	11	-20	25	-4	23	15	32	9	21	-11	40	22	32	7	47	25	52	13	39	6
12...	30	1	32	7	24	-5	33	5	16	-20	30	-9	19	-15	43	0	18	-8	44	24	30	8	43	23	55	25	37	3
13...	31	10	33	19	29	7	28	9	23	3	39	12	32	16	41	-2	20	-8	42	23	32	15	52	24	54	24	33	10
14...	30	-1	29	2	28	3	35	14	20	-5	32	9	26	12	45	-5	21	-8	40	22	33	11	49	25	51	21	31	7
15...	27	15	30	0	30	1	33	9	12	-24	24	-14	19	-17	41	-6	19	-12	41	21	34	7	50	26	50	23	44	2
16...	26	5	40	6	27	-3	22	3	9	-25	24	-8	21	-19	43	-5	15	-11	40	17	29	6	49	20	48	35	39	7
17...	10	-22	17	-11	23	6	24	5	7	-10	20	-19	10	-29	40	-7	20	-6	33	17	27	4	38	25	40	22	32	12
18...	12	-19	-3	-32	20	-6	20	2	-5	-31	7	-30	2	-44	40	1	-2	-27	31	10	20	-2	38	15	32	15	21	2
19...	7	-30	4	-20	19	-9	22	3	-5	-38	18	-18	6	-30	45	-15	7	-22	28	11	20	-2	40	13	33	16	28	-11
20...	12	-15	13	-8	25	2	19	8	4	-20	16	2	14	-19	30	-6	11	-3	25	11	24	4	37	19	25	14	30	-1
21...	10	-15	18	-1	25	16	25	5	14	-23	22	-2	11	-22	22	-1	12	-7	26	18	23	10	39	24	33	15	35	7
22...	16	-20	16	-12	27	18	25	16	20	-10	17	-13	33	6	19	-9	11	-19	28	16	27	9	34	20	47	25	37	10
23...	15	-22	4	-21	31	25	25	14	17	-11	18	9	31	15	20	-8	13	-10	30	20	29	21	31	18	40	25	40	28
24...	14	-21	17	-27	38	-2	16	-5	15	-23	15	-17	24	3	35	-7	5	-24	21	2	24	0	32	11	44	25	44	4
25...	20	-15	11	-12	29	-12	16	-15	0	-32	20	-17	14	-28	32	-8	6	-21	23	11	20	-8	32	-4	42	24	38	10
26...	30	-3	28	-14	36	4	16	-13	7	-27	25	-10	21	-18	31	-9	11	-21	23	-1	19	-9	32	-4	45	25	47	0
27...	26	5	32	18	24	-4	14	-12	20	-18	27	-7	36	16	32	-8	9	-20	11	0	19	-10	30	-4	55	25	47	9
28...	26	5	33	3	28	-9	22	-13	20	-19	23	-9	26	-13	35	-8	9	-20	31	1	19	-9	33	0	57	30	45	10
29...	30	2	32	-3	29	-12	18	-13	19	-28	27	-13	21	-25	30	-4	8	-21	16	1	21	-9	34	2	60	29	51	12
30...	33	7	26	-5	32	-6	15	-10	12	-26	20	-7	22	-23	22	-2	7	-18	23	3	21	-9	34	7	60	33	48	6
31...	30	15	40	11	35	30	25	15	22	12	45	15	37	16	21	-3	20	4	35	18	25	15	52	17	63	37	46	15
Means	21.6	-5.7	24.4	-2.2	28.6	4.7	26.3	7.9	16.4	-13.4	27.0	-0.5	23.0	-4.7	35.7	0.0	17.7	-8.0	33.9	17.6	29.7	9.3	40.4	17.7	46.2	22.8	38.8	9.9

Date.	Arizona.																								Logan, Nev.
	Biahee.	Flagstaff.		Fort Apache.		Grand Canyon.		Parker.	Phoenix.		Prescott.		St. Michaels.		San Carlos.		Tucson.		Yuma.						
Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.		
1.....	64	34	51	32	64	26	50	28			65	40	59	36	45	23			71	32	74	40	60	30	
2.....	63	33	38	28	48	29	38	22			69	42	54	32	46	31			74	44	74	41	56	32	
3.....	57	43	29	11	49	14	26	1			57	34	52	27	41	26			61	31	58	38	48	30	
4.....	48	22	26	5	43	11	24	2			51	28	35	14	26	12			49	21	56	26	54	26	
5.....	48	21	27	10	42	9	34	4			45	25	35	15	30	5			54	17	48	30	44	24	
6.....	46	24	30	- 2	40	10	34	0			49	34	36	15	30	8			52	36	56	37	41	23	
7.....	54	25	30	- 2	50	16	35	4			52	33	40	19	28	1			57	28	61	36	40	28	
8.....	58	33	36	14	49	23	34	8			63	37	44	33	26	3			65	28	56	41	47	28	
9.....	58	35	38	17	48	16	32	6			58	41	45	29	38	20			67	29	64	43	50	40	
10.....	57	45	36	12	49	21	38	6			62	44	49	39	36				63	44	63	44	57	24	
11.....	50	36	30	10	44	22	38	6			61	38	40	24		2			59	27	63	43	52	25	
12.....	52	25	44	8	52	14	39	4			60	34	49	29	36	0			60	22	63	40	53	29	
13.....	62	32	45	19	58	24	39	4			62	37	58	37	39	16			64	27	68	40	55	28	
14.....	60	39	32	9	57	20	40	10			61	35	44	38	30	6			66	27	66	42	57	28	
15.....	49	33	31	21	51	21	40	10			58	44	42	22	29	0			65	41	61	51	56	24	
16.....	60	30	43	3	51	18	38	8			65	40	48	28	32	3			59	37	63	42	55	26	
17.....	49	37	24	12	48	19	32	4			53	35	34	25	27	17			60	35	57	41	52	29	
18.....	39	31	23	0	33	19	30	4			54	31	33	19	32	- 2			40	33	53	28	45	23	
19.....	35	25	31	- 8	36	4	28	2			51	26	39	1	17	-19			50	29	55	28	45	19	
20.....	42	26	23	10	37	6	29	3			52	31	39	1	17	- 6			49	32	54	27	40	20	
21.....	43	31	27	21	41	22	30	6			58	44	33	5	31	10			56	41	50	45	38	31	
22.....	48	31	33	27	46	33	32	10			58	45	40	27	36	25			63	36	54	48	40	30	
23.....	44	36	34	21	46	29	33	10			55	42	40	33	35	10			57	41	53	39	48	32	
24.....	48	36	32	-12	46	31	33	-10			59	37	35	25	30	- 9			60	35	58	36	46	25	
25.....	52	31	30	-11	56	16	38	-10			62	34	38	10	19	-13			69	30	59	40	45	22	
26.....	58	29	47	-10	58	18	38	- 8			64	36	44	2	25	-11			70	36	59	37	48	21	
27.....	62	39	48	-11	58	16	44	- 6			63	33	49	2	23	-11			70	30	61	39	48	20	
28.....	57	38	43	0	58	12	45	4			60	36	47	13	37	8			66	32	58	42	47	23	
29.....	61	44	44	0	57	16	40	6			67	43	47	13	29	8			69	39	65	40	50	20	
30.....	62	40	52	1	67	17	53	10			70	38	56	14	33	5			76	39	71	53	48	27	
31.....	67	44	45	36	69	17	44	35			70	51	57	38	45	28			79	44	68	52	46	31	
Means.....	53.3	33.2	35.5	8.7	50.9	18.4	36.4	5.5			59.2	37.0	43.8	21.5	31.3	5.1			61.9	33.0	60.9	39.6	48.7	26.4	